

## **SUPPLEMENTARY MATERIAL**

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**Supplementary Table S1.** Effectiveness of COVID-19 vaccination in preventing confirmed SARS-CoV-2 outcomes among household close contacts. Navarre, Spain, January–April 2021 (n=10,574)

Evaluated outcome and vaccination status	Infections/ contacts	Crude relative risk (95% CI)	Adjusted relative risk (95% CI) <sup>a</sup>	Adjusted VE, % (95% CI) <sup>a</sup>
<b>Confirmed SARS-CoV-2 infection<sup>b</sup></b>				
Unvaccinated	4,987/9,925	Reference	Reference	Reference
Vaccinated with 1 dose	136/390	0.69 (0.59-0.82)	0.65 (0.55-0.78)	35 (22 to 45)
Vaccinated with 2 doses	44/259	0.34 (0.25-0.46)	0.33 (0.24-0.44)	67 (56 to 76)
Relative effect of 2 vs 1 dose		0.49 (0.35-0.68)	0.50 (0.36-0.70)	50 (30 to 64)
<b>Symptomatic COVID-19</b>				
Unvaccinated	3,883/9,925	Reference	Reference	Reference
Vaccinated with 1 dose	96/390	0.63 (0.51-0.77)	0.59 (0.48-0.72)	41 (28 to 52)
Vaccinated with 2 doses	20/259	0.20 (0.13-0.31)	0.19 (0.12-0.29)	81 (71 to 88)
Relative effect of 2 vs 1 dose		0.31 (0.19-0.51)	0.32 (0.20-0.51)	68 (49 to 80)
<b>Hospitalisation due to COVID-19</b>				
Unvaccinated	390/9,925	Reference	Reference	Reference
Vaccinated with 1 dose	7/390	0.46 (0.22-0.96)	0.28 (0.13-0.59)	72 (41 to 87)
Vaccinated with 2 doses	1/259	0.10 (0.01-0.70)	0.07 (0.01-0.53)	93 (47 to 99)
Relative effect of 2 vs 1 dose		0.22 (0.03-1.75)	0.27 (0.03-2.16)	73 (-116 to 97)
<b>Symptomatic COVID-19 in 18-59 years age group</b>				
Unvaccinated	3,031/8,032	Reference	Reference	Reference
Vaccinated with 1 dose	50/233	0.57 (0.43-0.75)	0.55 (0.42-0.73)	45 (27 to 58)
Vaccinated with 2 doses	12/196	0.16 (0.09-0.29)	0.15 (0.09-0.27)	85 (73 to 91)
Relative effect of 2 vs 1 dose		0.29 (0.15-0.54)	0.28 (0.15-0.52)	72 (48 to 85)
<b>Symptomatic COVID-19 in ≥60 years age group</b>				
Unvaccinated	852/1,893	Reference	Reference	Reference
Vaccinated with 1 dose	46/157	0.65 (0.48-0.88)	0.62 (0.46-0.85)	38 (15 to 54)
Vaccinated with 2 doses	8/63	0.28 (0.14-0.57)	0.27 (0.13-0.54)	73 (46 to 87)
Relative effect of 2 vs 1 dose		0.43 (0.21-0.92)	0.43 (0.20-0.91)	57 (8 to 79)

CI: confidence interval; COVID-19: coronavirus disease; SARS-CoV-2: severe acute respiratory syndrome coronavirus 2; VE: vaccine effectiveness.

<sup>a</sup> Relative risk adjusted by age groups (18-39, 40-59, and ≥60 years), sex, major chronic conditions and month.

<sup>b</sup> Asymptomatic and symptomatic SARS-CoV-2 infections.

**Supplementary Table S2.** Effectiveness of COVID-19 vaccination in preventing confirmed SARS-CoV-2 outcomes assessed exclusively in close contacts tested by RT-PCR. Navarre, Spain, January–April 2021 (n=19,376)

Evaluated outcome and vaccination status	Infections/ contacts	Crude relative risk (95% CI)	Adjusted relative risk (95% CI) <sup>a</sup>	Adjusted VE, % (95% CI) <sup>a</sup>
<b>Confirmed SARS-CoV-2 infection<sup>b</sup></b>				
Unvaccinated	5,431/18,031	Reference	Reference	Reference
Vaccinated with 1 dose	166/837	0.66 (0.56-0.77)	0.66 (0.57-0.78)	34 (22 to 43)
Vaccinated with 2 doses	58/508	0.38 (0.29-0.49)	0.37 (0.29-0.48)	63 (52 to 71)
Relative effect of 2 vs 1 dose		0.58 (0.43-0.78)	0.56 (0.41-0.75)	44 (25 to 59)
<b>Symptomatic COVID-19</b>				
Unvaccinated	3,768/18,031	Reference	Reference	Reference
Vaccinated with 1 dose	103/837	0.59 (0.48-0.72)	0.58 (0.48-0.71)	42 (29 to 52)
Vaccinated with 2 doses	23/508	0.22 (0.14-0.33)	0.20 (0.13-0.31)	80 (69 to 87)
Relative effect of 2 vs 1 dose		0.37 (0.23-0.58)	0.35 (0.22-0.55)	65 (45 to 78)
<b>Hospitalisation due to COVID-19</b>				
Unvaccinated	413/18,031	Reference	Reference	Reference
Vaccinated with 1 dose	9/837	0.47 (0.24-0.91)	0.32 (0.16-0.62)	68 (38 to 84)
Vaccinated with 2 doses	1/508	0.09 (0.01-0.61)	0.07 (0.01-0.47)	93 (53 to 99)
Relative effect of 2 vs 1 dose		0.18 (0.02-1.45)	0.20 (0.03-1.63)	80 (-63 to 97)
<b>Symptomatic COVID-19 in 18-59 years age group</b>				
Unvaccinated	2,895/14,323	Reference	Reference	Reference
Vaccinated with 1 dose	50/497	0.50 (0.38-0.66)	0.50 (0.38-0.67)	50 (33 to 62)
Vaccinated with 2 doses	13/348	0.19 (0.11-0.32)	0.17 (0.10-0.29)	83 (71 to 90)
Relative effect of 2 vs 1 dose		0.37 (0.20-0.68)	0.33 (0.18-0.60)	67 (40 to 82)
<b>Symptomatic COVID-19 in ≥60 years age group</b>				
Unvaccinated	873/3,708	Reference	Reference	Reference
Vaccinated with 1 dose	53/340	0.66 (0.50-0.87)	0.72 (0.54-0.96)	28 (4 to 46)
Vaccinated with 2 doses	10/160	0.27 (0.14-0.50)	0.30 (0.16-0.57)	70 (43 to 84)
Relative effect of 2 vs 1 dose		0.40 (0.20-0.79)	0.42 (0.21-0.83)	58 (17 to 79)

CI: confidence interval; COVID-19: coronavirus disease; SARS-CoV-2: severe acute respiratory syndrome coronavirus 2; VE: vaccine effectiveness.

<sup>a</sup> Relative risk adjusted by age groups (18-39, 40-59, and ≥60 years), sex, contact setting (household or other), major chronic conditions and month.

<sup>b</sup> Asymptomatic and symptomatic SARS-CoV-2 infections.

**Supplementary Figure.** Results of the whole genome sequencing of SARS-CoV-2 among patients confirmed infection in the study. Navarre, Spain, January to April 2021

